SOD-123FL

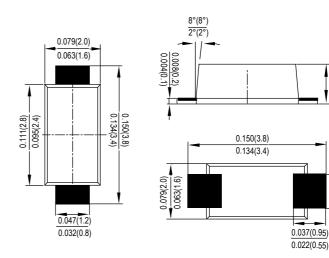


## **Features**

- Glass passivated die construction
- · Ideal for surface mouted applications
- · Low reverse leakage
- · Metallurgically bonded construction
- High temperature soldering guaranteed: 260 °C /10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- Plastic material-UL flammability 94V-0

## **Mechanical Data**

- · Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- · Polarity: Color band denotes cathode end
- · Mounting position: Any



Dimensions in inches and (millimeters)

## **Maximum Ratings and Electrical Characteristics**

Rating at 25 ℃ ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	F1	F2	F3	F4	F5	F6	F7	UNITS
Peak Repetitive Reverse Voltage	VRRM								
Working Peak Reverse Voltage	VRWM	50	100	200	400	600	800	1000	V
DC Blocking Voltage	VDC								
RMS Reverse Voltage		35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>L</sub> =90 ℃	lf(AV)	1.0						А	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	Ігѕм	30						А	
I <sup>2</sup> t Rating for Fusing (t < 8.3ms)	l²t				3.735				A <sup>2</sup> s
Forward Voltage per element @IF=1.0A	V <sub>FM</sub>				1.3				V
Peak Reverse Current @TA =25°C At Rated DC Blocking Voltage @TA =125 °C	lR				5.0 100				uA
Maximum reverse recovery time (NOTE 1)	trr		1	50		250	50	00	ns
Typical Junction Capacitance (Note 2)	CJ	7					XK	pF	
Typical thermal resistance (NOTE 3)	Reja	60						°C/W	
Operating and Storage Temperature Range	Т <sub>Ј</sub> ,Тѕтс	-55to+150					$^{\circ}\mathbb{C}$		

- Note:1. Measured with IF=0.5A, IR=1A, Irr=0.25A.
  - 2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C.
  - 3. Device mounted on FR-4 substrate, 25.4\*25.4mm, 2oz, single-sided, PC boards with 2.1\*2.1mm copper pad.

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FIG. 1- FORWARD CURRENT DERATING CURVE

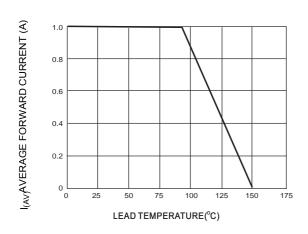
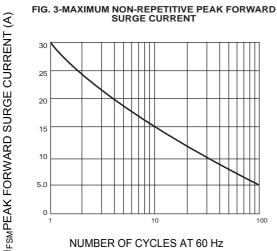
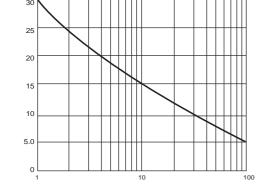


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS IFINSTANTANEOUS FORWARD CURRENT,(A) 0.01

V<sub>F</sub>, INSTANTANEOUSFORWARD VOLTAGE (V)







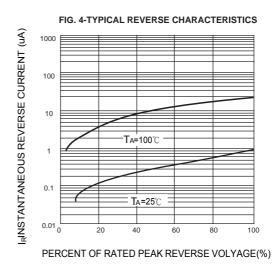
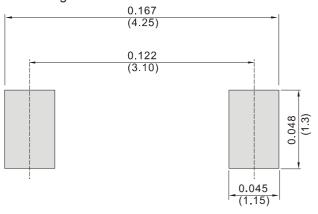


Fig.5 TYPICAL CAPACITANCE



SYMBOL	F1	F2	F3	F4	F5	F6	F7
MARKING	F1	F2	F3	F4	F5	F6	F7

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